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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,622	03/17/2006	Martinus Hermanus Van Delden	NI 031104	7664
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EXAMINER				
STEINBERG, JEFFREY S				
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4193				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/572,622

Applicant(s)

VAN DELDEN ET AL.

Examiner

JEFFREY STEINBERG

Art Unit

4193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-13 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 17 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-85/86)
Paper No(s)/Mail Date 8/6/2007.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application.
6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). The remaining figures should, likewise, be labeled accordingly. Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The Specification is objected to because of its informality. Please see the guidelines below. Correction is required. See MPEP § 608.01(b).

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A

- COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
- (1) Field of the Invention.
- (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-5, 7 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. (US 6,972,753) as applied to claim1 above, and further in view of Kasday (US 4,484,179).

Regarding Claim 1, Kimura discloses a display device(Kimura, Title), including a display, arranged for detecting an input position(Kimura, Abstract) on a screen (inherent of a "display device") of said display, wherein the screen comprises:

- a first light guide (Kimura '753, Column 2, Lines 32-33), and a light source ("illumination Device" 112, Column 3, Line 47) arranged to emit light (Kimura, Column 2, Lines 35-36) into the first light guide (Kimura '753, Column 2, Lines 32-33), the first light guide (Kimura '753, Column 2, Lines 32-33) being optically matched with its surroundings in such way that the emitted(Kimura, Column 2, Lines 35-36) from said light source (Kimura '753, Column("illumination device" 112," Column 3, Line 47) is confined within the first light guide (Kimura '753, Column 2, Lines 32-33) by means of total internal reflection, and is extracted from the first light guide (Kimura '753, Column 2, Lines 32-33) when a user physically interacts with said screen at said input position;

- a second light guide (Kimura, Claim 14, Column 12, Lines 11-13) arranged so that said user interaction with said screen establishes a contact between said first light guide (Kimura '753, Column 2, Lines 32-33) and said second light guide (Kimura, Claim 14, Column 12, Lines 11-13).

Regarding Claim 2, Kimura discloses a display device as claimed in Claim 1, wherein at least part of the light extracted from the first light guide (Kimura '753, Column 2, Lines 32-33) enters into the second light guide (Kimura, Claim 14, Column 12, Lines 11-13) when contact is established between the first and second light guides, said extracted light being confined in the second light guide (see above) by means of total internal reflection (Kimura, Column 2, Lines 59-62).

Regarding Claim 3, Kimura discloses a display device as claimed in Claim 1, wherein the display device further comprises detecting means (Kimura, Column 2, Lines 66-67) for detecting the light extracted from the first light guide (Kimura '753, Column 2, Lines 32-33) and relating the detecting of the light to said input position.

Regarding Claim 4, Kimura discloses a display device as claimed in Claim 2, wherein the light detecting means (Kimura, Column 2, Lines 66-67) are arranged adjacent said second light guide (Kimura, Claim 14, Column 12, Lines 11-13) in essentially the same plane therewith. Kimura and Kasday are analogous because they are both concerned with the same endeavor, touchpad devices.

Regarding Claim 5, Kimura discloses a display device as claimed in Claim 1, wherein the user physically interacts with the second light guide (Kimura, Claim 14, Column 12,

Lines 11-13) but does not disclose the light guide being made of a flexible material.

Kasday('179) teaches such a flexible material(Kasday '179, Column 5, Line 62).

Kimura and Kasday are analogous because they are both concerned with the same endeavor, touchpad devices. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Display Device disclosed by Kimura with the teachings of Kasday, since such a modification would have improved the functionality of the touchpad.

Regarding Claim 7, Kimura discloses a display device as claimed in Claim 1, a surface of the second light guide (Kimura, Claim 14, Column 12, Lines 11-13) facing the first light guide (Kimura '753, Column 2, Lines 32-33) but does not disclose that is structured so as to prevent adhesion to the first light guide(see above) when the contact between the first and second light guides is established. Kasday ('179) terms this structure an "air gap 30" (Column 4, Line 7). Kimura and Kasday are analogous because they are both concerned with the same endeavor, touchpad devices. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Display Device disclosed by Kimura with the teachings of Kasday, since such a modification would have improved the functionality of the touchpad.

Regarding Claim 10, Kimura discloses a display device as claimed in Claim 1, wherein the first (Kimura '753, Column 2, Lines 32-33) and second light guide (Kimura, Claim 14, Column 12, Lines 11-13) consist of a material having a refractive index in the range

of 1.49-1.58. (Column 2, Lines 41-43).

Regarding Claim 11, Kimura discloses a display device as claimed in Claim 10, wherein the material includes polymethyl methacrylate (Column 4, Lines 4-5). Kimura and Kasday are analogous because they are both concerned with the same endeavor, touchpad devices. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Display Device disclosed by Kimura with the teachings of Kasday, since such a modification would have improved the functionality of the touchpad.

Claims 6 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. ('753), as applied to claim 1 above, and further in view of US Patent to Kasday (US 4,484,179) and further in view of Ryannen (7,265,748).

Regarding Claim 6, Kimura discloses a display device as claimed in Claim 1, but does not disclose that the display device further comprises detecting means for detecting a decrease in light intensity in the first light guide and relating the decrease in light intensity to said input position. Ryannen teaches said detecting means (Columns 2-3, Lines 62-3, respectively). Kasday ('179), Kimura ('753) and Ryannen ('748) are analogous because they are both concerned with the same endeavor, touchpad devices. It would have been obvious to one having ordinary skill in the art at the time

the invention was made to modify the Display Device disclosed by Kimura with the teachings of Ryannan, since such a modification would have improved the touchpad.

Regarding Claim 12, Kimura discloses a display device as claimed in Claim 1, wherein the light source (508) arranged to emit light ("illumination device," Kimura '753, Column 3, Line 57) into the first light guide (Kimura '753, Column 2, Lines 32-33) but does not disclose the emission of light having a wavelength outside the visible spectrum.

Ryannan teaches the use of such light(Ryannan, Column 3, Lines 46-47).

Kasday('179), Kimura('753) and Ryannan('748) are analogous because they are both concerned with the same endeavor, touchpad devices. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Display Device disclosed by Kimura with the teachings of Ryannan, since such a modification would have improved the touchpad.

Regarding Claim 13, Kimura discloses a display device as claimed in Claim 12, wherein the light of the light source ("illumination device," Kimura '753, Column 3, Line 57) but does not disclose the use of infrared or near ultraviolet light. Ryannan teaches light of the correct wavelength(Ryannan, Column 3, Lines 46-47). Kasday('179), Kimura('753) and Ryannan('748) are analogous because they are both concerned with the same endeavor, touchpad devices. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Display Device

disclosed by Kimura with the teachings of Rynnann, since such a modification would have improved the touchpad.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al.('753) as applied to claim 1 above, and further in view of US Patents to Kasday('179), Rynnann ('748) and Cross et al. (7,019,734).

Regarding Claims 8 and 9, Kimura discloses a display device as claimed in Claim 1, but does not disclose a media that is a liquid having a refractive index in the range of 1.30-1.48 or comprises a fluorine-based silicon fluids or alcohol/water mixture, the liquid being enclosed in an expandable container arranged between the first (Kimura '753, Column 2, Lines 32-33) and the second light guide (Kimura, Claim 14, Column 12, Lines 11-13). Kimura teaches use of a media with substantially the same refractive indices(Column 4, Lines 1-15) and Cross ('734) teaches an "insulating liquid material." (Column 3, Lines 34-37). Kimura('753), Kasday('179), Rynnann('748) and Cross('734) are analogous because they are both concerned with the same endeavor, touchpad devices. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Display Device disclosed by Kimura with the teachings of Cross, since such a modification would have improved the touchpad.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. (US 6,972,753) as applied to claim 1 above, and further in view of Kasday ('179), and in further view of Rynnen ('748).

Regarding Claim 13, Kimura discloses a display device as claimed in Claim 12, wherein the light of the light source ("illumination device," Kimura '753, Column 3, Line 57) but does not disclose the use of infrared or near ultraviolet light. Rynnen teaches light of the correct wavelength (Rynnen, Column 3, Lines 46-47). Kimura ('753), Kasday ('179) and Rynnen ('748) are analogous because they are both concerned with the same endeavor, touchpad devices. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Display Device disclosed by Kimura with the teachings of Kasday and Rynnen, since such a modification would have improved the touchpad.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Nagai et al. (US 6,784,876), Bidville et al. (US 5,703,356), Jianping et al. (US 7,126,586), Pittel et al. (US 7,268,774) and Rosenberg et al. (US 6,259,382).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY STEINBERG whose telephone number is (571)270-7617. The examiner can normally be reached on Monday-Friday 7:30am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JEFFREY STEINBERG/
Examiner, Art Unit 4193

/Derris H Banks/
Supervisory Patent Examiner, Art
Unit 3725